

WHAT IS CLAIMED IS:

- 5 1. A multilayer inductor comprising:
a plurality of stacked magnetic layers;
through-holes formed in the stacked magnetic layers;
and
a plurality of coil conductor patterns disposed between
the plurality of magnetic layers and spirally connected to
each other via the through-holes;
- 10 wherein the area of a projected plane of a circuit of
each coil conductor pattern on a main surface of the
magnetic layer is in a range from about 35% to about 75% of
the area of the main surface of the magnetic layer.
- 15 2. A multilayer inductor according to Claim 1, further
comprising a nonmagnetic element disposed in the vicinity of
the coil conductor patterns in the magnetic layer.
- 20 3. A multilayer inductor according to Claim 1, further
comprising external electrodes provided on the ends of the
multilayer inductor.
- 25 4. A multilayer inductor according to Claim 3, wherein
the coil conductor patterns include lead out portions which
are connected to respective ones of the external electrodes.

5. A multilayer inductor according to Claim 1, wherein the magnetic layers are substantially disk-shaped.

5 6. A multilayer inductor according to Claim 1, wherein the projected plane of the circuit of the coil conductor patterns on the main surfaces of the magnetic layers is substantially ring-shaped.

10 7. A multilayer inductor according to Claim 1, wherein an air gap or a cavity is disposed inside one of the plurality of coil conductor patterns.

15 8. A multilayer inductor according to Claim 1, wherein selected ones of the plurality of coil conductor patterns have substantially C-shaped configurations.

20 9. A multilayer inductor according to Claim 1, wherein selected ones of the plurality of coil conductor patterns have substantially J-shaped configurations.

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